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<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/663,152	IMAI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Anthony T Perry	2879	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 6/14/04.
2. ☒ The allowed claim(s) is/are 9-18.
3. ☒ The drawings filed on 14 June 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☒ Certified copies of the priority documents have been received in Application No. 09/480,741.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)           |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                              |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|   | 9. <input type="checkbox"/> Other _____   |

## **DETAILED ACTION**

### ***Response to Amendment***

The Amendment, filed on 6/14/04, has been entered and acknowledged by the Examiner.

### ***Drawings***

The corrected drawings were received on 6/14/04. These drawings are acceptable.

### ***Allowable Subject Matter***

Claims 9-18 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding claims 9 and 10, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claims 9 and 10, and specifically comprising the limitation "firing the ink, wherein, after the firing, the support particles are decomposed, forming voids in an aggregation of the carbon particles," wherein "the support particles" is understood to mean all of the support particles of the ink. The Uemura reference only teaches that the support particles formed on the surface of the ink layer are decomposed by laser irradiation, and therefor voids in an aggregation of the carbon particles are only formed at the surface of the applied ink layer. As such, the product-by-process elements of claims 9-10 impart distinctive structural characteristics to the final product, specifically voids formed in an aggregation of the carbon particles throughout the entire ink layer, not just the surface.

Regarding claims 14 and 16, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claims 9 and 10, and specifically comprising the limitation "firing the ink; wherein the support particles are made of powder that decomposes into a gas when heated or burned, and wherein the decomposition temperature of the

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support particles is lower than the decomposition temperature of the organic binder.” Again, the Uemura reference only teaches that the support particles formed on the surface of the ink layer are decomposed by laser irradiation, and therefor voids in an aggregation of the carbon particles are only formed at the surface of the applied ink layer. By the claims reciting that the decomposition temperature of the support particles is lower than that of the organic binder, claims 14 and 16 impart distinctive structural characteristics to the final product, specifically voids where the support particles once existed, formed in an aggregation of the carbon particles throughout the entire ink layer, not just the surface.

Regarding claims 11-13, claims 11-13 are allowable for the reasons given in claims 9-10 because of their dependency status from claims 9-10.

Regarding claims 15 and 17-18, claims 15 and 17-18 are allowable for the reasons given in claims 14 and 16 because of their dependency status from claims 14 and 16.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

### **Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Anthony Perry* whose telephone number is (571) 272-2459. The examiner can normally be reached between the hours of 9:00AM to 5:30PM Monday thru Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel, can be reached on (571) 272-24597. **The fax phone number for this Group is (703) 872-9306.**

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [Anthony.perry@uspto.gov].

*All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.*

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.



Anthony Perry  
Patent Examiner  
Art Unit 2879  
August 12, 2004



Vip Patel  
Primary Examiner  
Art Unit 2879